

Nat'l Bee-Keepers' Convention at Los Angeles, Aug. 18-20

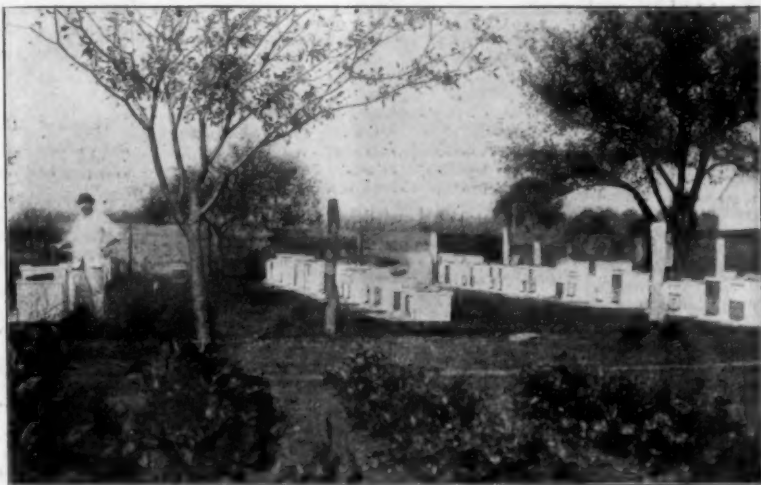
# AMERICAN BEE JOURNAL

43d Year.

CHICAGO, ILL., APRIL 16, 1903.

No. 16.

WEEKLY



APIARY OF L. C. MEDKIFF, OF SALEM CO., N. J.  
(See next page.)



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**GEORGE W. YORK.**

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DR. C. C. MILLER, E. E. HASTY, EMMA M. WILSON

#### IMPORTANT NOTICES.

**The Subscription Price** of this Journal is \$1.00 a year, in the United States, Canada, and Mexico; all other countries in the Postal Union; 50 cents a year extra for postage. Sample copy free.

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## Weekly Budget.

GEO. W. BRODBECK, of Los Angeles Co., Calif., President of the California National Honey-Producers' Association, wrote us on March 27:

"The season here in California, until of late, has again been in doubt, but recent rains make it more promising, so that we now feel confident of a crop. A large yield, though, will require more and better rains; but of this we feel more hopeful, and I am extremely anxious that this shall prove a bounteous year."

DR. MILLER'S NEW BEE-BOOK is receiving very flattering comments from the editors of the other bee-papers. Mr. Ernest R. Root, of Gleanings in Bee-Culture, gives this racy write-up about it:

#### "FORTY YEARS AMONG THE BEES."

In our last issue I promised to tell you more about this new and interesting book by Dr. C. C. Miller. I have read page after page of it [Dr. Miller's new book], and the more I read the more I am convinced that it is one of the most practical books that was ever written. There are 101—yes, 1001—little kinks, little tricks of the trade, little ideas, and big ones, too, which, while they may be old to some of the veterans, I am of the opinion will prove to be new and useful to the majority of them. The Doctor has crowded into these 328 pages his ripest experience; and not only that, he has drawn from the ideas of others so that we have the very latest and best in the way of practical information from one who has actually spent "forty years among the bees."

In our previous issue I spoke of the fact that the writers of text-books, and editors of

papers, often assume too much knowledge on the part of the one they are supposed to instruct. Our author, while he is not writing for beginners, does not assume anything of the sort. He describes just what he does in the bee-yard, and how he does it. Even in the simple matter of catching a queen, he goes into full details, illustrating by photograph each step in the operation. And that reminds me that, some four or five years ago, I told the Doctor he ought to get one of those little pocket kodaks; that one who wrote as much as he did ought to be able once in a while to give a picture of the *modus operandi*. The next thing I knew he had bought him a little camera, and was snapping it on every thing right and left. Why, you just ought to see how he illustrates in his book his various manipulations, with that handy little instrument. Take, for example, his method of getting bees off the combs, as shown in Fig. 26, page 83. Without the book itself I can not describe to you exactly the vigorous shake or "shook" he gives a comb; but with his left hand he grabs the end-bar securely; then with his right hand, or fist, rather, he comes down on the back of his left hand, holding the frame, with a quick, sharp blow. Why, you can actually see Dr. Miller's chubby fist knocking every bee clean off. Did you ever try to shake a comb with two hands, giving it the most vigorous kind of "shook," but it would not "shook" all the bees off unless they were black ones? Well, take Dr. Miller's plan, and, presto! every bee will drop *instantly*. In Fig. 28 he shows the art of sweeping bees off the comb; in Fig. 31 how he stays up his foundation with wooden splints, and a good plan it is, too.

Again, we get a glimpse of the Doctor holding his Miller feeder, just as if he were describing its merits before a convention. Another view that is most interesting is the drive leading up to the Miller mansion. On one side of the road is a row of beautiful lindens, making the view from a purely artistic point very attractive. Fig. 29 shows the sealed brood of laying workers; and it is the best representation in printer's ink of such brood I have ever seen. Fig. 60 is a remarkable view of a section filled with foundation—one large top starter and one narrow bottom starter.

In Fig. 61 we see the Doctor in his light summer clothing, trimming foundation up for sections. Yes, we can almost see the sweat rolling down his good-natured face. In Fig. 83 we are forcibly reminded of the fact that the Doctor believes in cool dress for summer work among the bees. One thickness of clothing, bee-veil, and hat, shoes and stockings, complete his regalia, and he looks very neat and comfortable standing up among his favorite rose-bushes. In Fig. 84, again, we see Miss Wilson, his sister-in-law, in her very neat bee-suit. Well, I might go on and describe each of the 112 pictures that are so interesting and also instructive.

Yes, the book is full of good things—packed full of them, and I question very much whether any progressive bee-keeper, beginner or veteran, can afford not to read this book clear through. You may say you have read the Doctor's writings for years. Granted. But you will find that there are many little kinks that he describes in his book that he has never put on the pages of a bee-journal—not because he was not willing to impart what he knew; but because, when he sat down to write a book, one thing after another suggested itself until he unfolded a new story that is as good as a story, and far more profitable.

Editor W. Z. Hutchinson, of the Bee-Keepers' Review, had this to offer after having "dipped into it here and there:"

#### "FORTY YEARS AMONG THE BEES."

A few years ago Dr. C. C. Miller wrote a readable and instructive book called "A Year Among the Bees." In this book he gave advice for conducting the affairs of the apiary from the beginning to the end of the year, hence the name. The demand was such that the book was soon out of print, and I have often wondered why the good Doctor did not get out a new edition. I have always attributed this to a lack of time on the Doctor's

part, as he once told me that, years ago, he had looked forward to the time when he might have a little leisure, but, later, he had given up all such hopes. It seems, however, that he has been using his time of late in writing an entirely new book, with a title that sounds very much like the old one, but it means forty times as much, as it is "Forty Years Among the Bees." In this the author goes briefly, but concisely, over his forty years of bee-keeping, for he has really kept bees for forty years. Not only this, but he gives us a delightfully written biographical sketch of his boyhood in Pennsylvania, his heroic struggles in securing an education, in which he boarded himself, cutting his weekly expense for board down to only 35 cents a week, which so affected his health that he has never fully recovered from it. I found this account of his early life so interesting that I read it aloud to the whole family. Most vividly did it recall my own boyhood's days, in which I roamed the forest as free as the wild things in whose lives I became so interested.

Another very interesting feature of the book is the large number of kodak pictures with which its pages are embellished. The Doctor has surely learned how to "push the button," or have some one do it for him, with considerable proficiency.

I have not yet said one word about what is probably the most important part of the work, that is, the main body that gives the solid instructions regarding actual work in the apiary. There are two reasons for this: One is the lack of room in this issue to do the subject justice, and the other is that I have not read it. I have done this, however: I have dipped into it here and there, just enough so that I feel warranted in saying that it is the master-piece of the author's forty years among the bees. I shall read it, however, every word, and future issues will contain frequent comments upon what I have read in "Forty Years Among the Bees."

The postpaid price of Dr. Miller's book is \$1.00; or with the American Bee Journal one year—both for only \$1.75; or we give it free as a premium to any one who is now a regular paid-in-advance subscriber to the Bee Journal, and who sends two new subscribers to the Bee Journal for a year with \$2.00 to pay for same.

MR. L. C. MEDKIFF'S APIARY is shown on the preceding page. He wrote thus, when sending the picture:

I send a picture of my apiary taken in the fall just before taking off the upper hive-stories. I had a fair crop of clover honey, but one of the poorest fall crops I ever knew or heard of for this locality. We had lots of flowers, but it rained so much and was so cool that the bees gathered very little. I had to feed about half of my colonies, of which I have 51.

The hive that I am standing by, with a smoker resting on it, contains one of my favorite colonies, and is one of superior stock.  
L. C. MEDKIFF.

STENOG—the man on the fence who is noted for his "Pickings from Our Neighbors' Fields" in Gleanings—had the following appreciated paragraph about this journal in his department recently:

"Although I have not had much to say about the 'Old Reliable' lately, it is not because it does not deserve it. Mr. York is not relaxing any of his efforts to make his journal indispensable to every bee-keeper. The high moral tone of the journal is very commendable. Mr. Hasty is always at his best here."

MR. THOS. WM. COWAN expected to start from California about Easter for Boston, thence to Europe, and possibly Africa, to be gone a year. Mr. Cowan is a great traveler when once he gets started.



# AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 THE OLDEST BEE-PAPER IN AMERICA

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## \* Editorial Comments. \*

The Honey and Beeswax Imports of the United States during 1901 and 1902 were as follows:

Honey in 1901—182,196 gallons; value.....	\$ 83,599
" 1902—167,301 " " " " " " " " " "	56,383
Beeswax in 1901—213,773 lbs. " " " " " " " " " "	55,884
" 1902—408,706 " " " " " " " " " "	115,937

Carpet-Grass has been highly spoken of as a honey-plant. In the Rocky Mountain Bee Journal, W. A. H. Gilstrap says that while it is a good yielder of fine honey in some favored localities, it is distinctly a swamp growth. "It can stand a dry climate if the ground is wet enough. Any of our upland grain-land is too dry for carpet-grass."

**Wax-Production.**—If there is any place where the production of wax at the expense of honey might be made to pay, one would think it would be in some parts of Cuba. A. I. Root reports from there that wax brings 35 cents spot cash, while honey scarcely nets the bee-keeper, who is away from the railroads, more than two cents a pound!

Los Angeles, Calif., has been selected by the Executive Committee as the place for holding the next annual meeting of the National Bee-Keepers' Association, and August 18, 19 and 20, 1903, are the dates.

The main reason for deciding on Los Angeles was on account of the low railroad rates in force at the time of the Grand Army meeting at San Francisco, which is held the same week, and the same rates apply to Los Angeles.

Further particulars will appear in the regular official notice to be issued by the Secretary of the Association later on, as soon as definite arrangements can be made as to hall for holding the meeting, hotel accommodations, etc.

We may say that San Antonio, Tex., and Salt Lake City, Utah, made honorable and strenuous efforts to secure this year's meeting of the National Bee-Keepers' Association, but those who have had the most experience know that in order to have the best and fullest attendance, the meeting must be held when low railroad rates all over the whole country can be taken advantage of, and the Grand Army beats them all in that line. So that fact had great weight with the committee in deciding the matter.

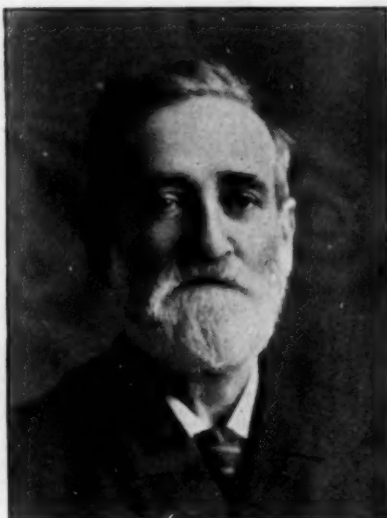
**Pear-Blight Treatment.**—Those who are familiar with the trouble bee-men have had in California, will be glad to learn that Dr. M. B. Waite, of the Department of Agriculture at Washington, is reported to have found a solution that will be a relief to the bee-keepers. An editorial in Gleanings in Bee-Culture says:

According to a newspaper report (a source which we do not always credit, but which seems in this case to bear the appearance of genuineness), Dr. Waite has discovered a plan by which "colonies of the bacilli" already existing in pear-blighted trees can be located and removed from the tree before it comes into bloom. Dr. Waite is quoted as saying, referring to the pear-growers, "Let them put the diseased part of the tree out of the way before insects begin to fly, and before the blossoms come out for them to alight on." Very simple. And now Dr. Waite is to be sent by his department to Colorado, to show the orchardists how to discover the "colonies of bacilli," and get them out of the way before bees and other insects have an oppor-

tunity to carry the infection. According to the same report, the "colonies of blight bacilli live in green bark where the blighted discolored portion blends off gradually into the normal bark." The Doctor simply recommends a little common-sense and some tree surgery. He says the pruning-knife or shears must be dipped in some disinfecting medium every time it cuts off a limb of a tree. It would be monstrous foolishness to scatter the blight from tree to tree in the very act of preventing such spread.

**"Improved Queen-Rearing, or How to Rear Large, Prolific, Long-Lived Queen-Bees,"** is the title of a neatly-printed pamphlet written by Henry Alley.

Courtesy Beverly Evening Times.



HENRY ALLEY.

Mr. Alley is a veteran bee-keeper, and probably the Nestor among those engaged in queen-rearing.

He will, no doubt, provoke opposition by saying that no better queens can be reared by starting cells in a full colony than in a nucleus of one Langstroth frame of brood and two of pollen and honey with adhering bees. But Mr. Alley's three-frame nuclei are really stronger than that term usually implies, for they are materially strengthened by the addition of young bees after being formed. On three or four successive evenings, about sunset, he takes a comb of bees from some strong colony

and brushes the bees down on the ground in front of the nucleus.

After forty years' experience he prefers for rearing queens on a large scale small nucleus hives containing five frames about five inches square.

He does not favor rearing queens over a colony with a laying queen except at swarming-time, unless the colony is about to supersede its queen.

The well-known Alley plan of starting cells with strips of comb containing eggs is given in detail, with some new features, and the whole pamphlet is written in a practical and compact manner. The price is \$1.50; 50 pages.

**Working Bees with Few Visits.**—A few years ago the noted French bee-keeper, Geo. de Layens, practiced and advocated a plan whereby he established apiaries at some distance, and visited them only a few times in the year—perhaps three times. Of course, he worked for extracted honey. For some reason little was said about it on this side the water. Now, there appears in the Bee-Keepers' Review the account of something in the same line by a Michigan bee-keeper, E. D. Townsend. The following particulars are of interest:

The bees are wintered on the summer stands in packing cases. About Oct. 1 I make a trip down there, look them over, feed any light ones until each colony has at least 20 or 30 pounds each, and then pack them for winter in from two to six inches of chaff. They are not disturbed again till I put the upper stories on, the first of June.

As our honey season does not open until about June 15, it will be seen that the bees have plenty of room previous to the flow, hence do

not get the swarming-fever; and, as I put two upper stories on each of the strong colonies at this visit, there is no swarming except in cases of superseding of queens during the honey season. This does away with all watching for swarms.

As I want my clover honey separate from the basswood, I make a third trip the first of July, and extract what clover there is, putting back the upper stories to catch the last end of the clover and basswood flow.

What clover and basswood there is I extract about Aug. 1; and, as there is no fall flow at this yard, this ends the season.

If it were not for keeping the clover separate, it would not be necessary to make more than three visits a year.

I have an assistant living about one-half mile from this yard, and he looks over the colonies, and adds upper stories where needed, visiting the yard twice during the honey-flow—once about June 24 and again July 12. He also helps me extract and pack the bees for winter—in all, about eight or ten days' work. This yard is one-third mile from any house, and there is no one there to watch and hive swarms when I am away.

Now, for results: The crop of 1901 was 10,500 pounds, and, last year, it was 4,500 pounds, making 15,000 total for two years. This was sold at wholesale at 7½ to 9 cents per pound, at an average of about 8 cents, making \$1,200, or \$150 each for the eight trips.

## Convention Proceedings.

### Chicago-Northwestern Convention.

Report of the Chicago-Northwestern Bee-Keepers' Convention, held in Chicago, Dec. 3 and 4, 1902.

BY OUR OWN SHORTHAND REPORTER.

(Continued from page 229.)

Mr. N. E. France, Inspector of Apiaries for the State of Wisconsin, talked on foul brood during practically the whole of the evening session, as follows:

#### FOUL BROOD—ITS CAUSE AND CURE.

There are many parts of this subject, and so many and varied are the interests that I hardly know on what part of it to touch. I had outlined quite a paper, thinking that it might go to the press, and through the published report of this meeting do considerable good. The headings had been finished, and I had started to typewrite out a full report, when some one—some of my comrade bee-keepers who had been in the northern counties hunting—sent down some deer heads without so much as asking me if I were at home, or would do the work for them, with instructions to "Mount this head for my house and send it back;" other heads kept coming in until I had dozens on my hands, so my prepared paper had to wait—the deer heads (fresh meat) could not wait, but needed immediate preparation.

I have been unable anywhere to procure an artist capable of making a drawing looking down into the depth of the brood-comb as the naked eye sees it. I went to three of our State Normal Schools in our State; gave the artists samples of comb, explained to them what I wanted, and they said, "Yes, we can see it." "Now," I said, "I am not asking the price, but can you make a drawing of this?" They said, "I will try it;" and after a time they would send me back the comb, saying, "I can not get the depth as the naked eye can see it." Consequently, if I can explain it so that you can understand it, it is the best I can do.

First, What is foul brood, and what does it look like? It is a germ disease. Now, in going over our State at Farmers' Institutes for the last six years, I have been surprised to find old bee-keepers who were well versed upon bee-keeping, and by so-called bad luck nearly run out of the bee-business, not knowing that foul brood was underlying all their trouble, and they didn't know what the disease was, and as I heard a remark made since I have been here, that one of the strong indications to detect it would be by the odor or smell. I will confess that so far as my study has gone, and from samples obtained from various States, as well as from all over my own, I find many, many yards where, in the same apiary, one colony is affected and the next is not; another is affected and the next one to it is not; one has a strong odor of foul brood, and the other little

or none, according to the condition of that hive. Now, why that is I can not say. We may have foul brood in our yard and not detect it by any odor. If we had a room where we could have the sunlight from the morning sun shining in I would ask nothing better than that each one would individually take a piece of comb containing foul brood and see the different stages of it for yourself. There is nothing like seeing to impress it upon one's mind. If those who have not seen it—and I will confess that the samples I have can not be seen well in this light—I question if you can get any satisfaction out of it, but I will try to explain some of the stages of the disease.

This disease, as I find it largely in the Northern States, especially Illinois, Minnesota, Wisconsin and Iowa, and on to the west, seems to affect the bee when it is along from four to nine days of age; sometimes it will be later. As we go farther south into the Southern States, it seems to affect it at an earlier day, along from two to three up to six days of age, making its first appearance.

Those first symptoms to the naked eye perhaps would not be noticed. I had to shade it here to show that it lies down curled up; right there is where it gets its first fatal blow; it is in the food. Foul brood becomes contagious to that larval bee just when it is fed the disease, and not before, and never until then. For instance, this cell [referring to drawing] is diseased and that is not, simply because this has been fed the disease and that not.

The first indications are that this larval bee becomes restless, and instead of lying down in a flat, curled-up condition, it becomes standing on the point end, with the larger portion of the larva uppermost, and a little brownish streak begins to show. The naked eye, perhaps, would not notice it at that stage; but instead of that growing (these are not true drawings)—all of us have seen the natural healthy brood—this bee, lacking the vigor of a healthy bee, the germs of disease preying upon it, it becomes weakened and falls flat upon the lower side-wall of that cell instead of standing apparently out from the walls of the cell.

Right at that stage the gases begin to accumulate internally in that larva, and it becomes somewhat of a gelatine or gluish nature, and the moment that larval bee strikes the lower side-wall of the cell (represented as if the comb were turned, looking straight down from this—this would be the lower side-wall of the cell in its natural condition), wherever that strikes it will never let go; wherever pickled brood, chilled brood, starved brood, may strike against the lower side of the wall, or upper, it is sure to stay, and it is lost.

You can take a pair of tweezers and go down in here and take that out, but if it is foul brood, and it once strikes the side-wall, it is there for all time, and I know of no medical treatment that will ever cure that germ of disease once there. Instead of maturing and hatching, the cells become sunken instead of being capped over; they begin to be irregular, the gasses accumulating, drawing down apparently until it will break the capping sometimes in the center, but more frequently to one side of the center, the weaker part giving away, and have ragged holes in the cappings. Quite often that is the first stage that the naked eye would see.

Now, at that stage it has become dead matter; when it is in the ropy stage it is brown and stringy and ropy in its nature. The head of the bee will become dried faster than the rest. As I have tried to illustrate, here on the lower side-wall the head end of the bee turns up; back of that, as this spreads out in the cell, just as it is getting ropy, there apparently is a little back-bone with ribbing showing, then the odor is worse; it is then at the ropy stage; it may stay in that condition from three or four days to three weeks, according to the condition of the weather; such weather as we are having lately it would remain in one unchanged condition the entire time. It will continue to dry down on the lower side-wall of the cell until we have just a little thin scale; sometimes it is as thick as the side-wall of the cell; quite often it is not even so thick, but invariably this one thing prevails—the head of that bee will become dried before the rest and curl up, and frequently that little bunch right at the top, and no one need ever mistake that for anything else. In the comb here in the window, that was the first indication that I looked for—this dried-down scale with that curled-up appearance.

If there are any questions on that part of it, perhaps we had better hear them before going further.

Mr. Meredith—I would like to ask a question in regard to ropiness. If it would be extended out by a toothpick, would it represent half or three-quarters of an inch?

Mr. France—That would depend upon the season. Just



at this stage, when there apparently is back-bone and ribbing showing, and it is nearly flat across the cell, it is most ropy, and that is about the stage when the cappings are sunken in; then a toothpick would draw it out probably nearly the length of the cell before letting go; but now, at this time of the year it has become thickened by the coolness of the atmosphere, and would not draw it so far; it would be thicker.

Dr. Miller—Did I understand that that curled-up head is always present? Will you always recognize that?

Mr. France—I have never known it to fail as yet; both from samples from our own State and from nearly all of the States where I know of the disease. I have tried to compare it from different localities, and never knew it to fail. I find that in comparing that of the different localities with that of my own State, it varies little.

Dr. Miller—Will you tell us whose writing you ever saw that mentioned that feature of a turned-up head?

Mr. France—I think Dr. Miller, for one.

Dr. Miller—No, I think not; I think I never saw nor heard of it before.

Mr. France—That is the one thing. And one thing further: I have so often taken the comb out of the hive like this one I find in the window, and invariably when I go to a bee-keeper and examine the yard, if one colony seems to be stronger than another I pass that and go to the weaker one. In the weaker colonies I will find any disease if it is in the yard anywhere. I carefully open them, and if it is very bad undoubtedly I get an odor. If we look into a comb in that direction, straight in [indicating], that comb looks fairly clean, but if you want to see it, turn the top towards you, so that your eyes strike the lower side-wall; then a little from the front end you will see that dried, hard, curled-up larva in there; and in this one, while they are hardly as thick in depth as the side-walls are, they are considerably aged.

How many of you can be here to-morrow before half past nine? I want you to know every stage of this foul brood while we are here, because I have the samples, and I would hate to commit myself on examination of the comb by lamplight, although I did go to a yard the first of July after nine o'clock at night to inspect it, because it was demanded of me. I had gone through two apiaries, finding several colonies diseased. I had an appointment at a considerable distance, over 100 miles from there the next day. It would not do to skip neighbor Smith's place, so I called at his house about nine o'clock; we had only a lamp. I asked for the weakest colonies in the yard. I opened the weakest one, and said: "Mr. Smith, shut up the hive instantly; this comb must go to the house." They had one of these glass reflectors on the lamp; it hung on the side of the wall. We looked the comb over; it was similar to this one; the first thing I noticed was the sunken cappings; run a match or toothpick in there and draw it out, and you could see that brown, ropy stage; then where the ribs were we had a knife and cut away the upper portion of the rib on the lower side-wall, and we could see those black, dried-down scales. "Well," he says, "What will I do?" "Treat your bees, and do it to-morrow." I told him what to do, and he said he would do it. I was back there just 23 days from that time, reviewing that section of country; the basswood was in bloom; each of the hives had eight full sheets of foundation drawn out, brood well on towards maturity, and 48 full sections ready on each of his hives. It shows what can be done if it is done at the right season; if done during the basswood season it doesn't seem to set them back much.

Dr. Miller—To help us to understand that same point, will you refer to the picture and tell us about that lower part; is that meant to be an outside or bottom cell?

Mr. France—This is supposed to represent, as if I had cut away the upper side, showing just the lower, here being the lower, and this the extreme bottom of the wall [indicating].

Dr. Miller—The upper part, as it stands there, is the mouth of the cell?

Mr. France—Yes, sir.

Dr. Miller—So that the mouth of the cell is lower down?

Mr. France—I tried to illustrate it in this form, but can not make a good drawing.

Dr. Miller—The point in it is, is that turned-up head the bottom of the cell or mouth?

Mr. France—Yes, the lower side-wall near the front end, as if this were the cell [indicating]. I can touch it almost the moment I touch the cell.

Question—The septum in that case is away back?

Answer—Yes. (Continued next week.)

## Contributed Articles.

### A Plan for Prevention of Swarming.

BY L. STACHELHAUSEN.

DR. C. C. MILLER:—I just received from Chicago your pretty book, "Forty Years Among the Bees," and commenced at once to read it and I am delighted with the many practical hints it contains.

It seems to me you are still misunderstanding my plan of preventing swarms—and perhaps a "certain editor" is to blame, who talked of forced and "shook" swarms in combination with my plan. What you say (on pages 173 and 174 of your book) is certainly true for these forced swarms, but not for my plan. You say: "There are thousands of prospective bees in the brood taken away." That is the reason I *unite* these bees, hatching from the brood taken away, as soon as they are of any value to the main colony. Certainly the young bees do housework, but in the main colony (forced swarm) is at first none or very few brood; as soon as the young bees are employed in the other hive with nursing the brood; as soon as young bees are needed in the main colony they can be given by brushing off some of the combs. That will not cause swarming, as long as there is no surplus of young bees compared with the open brood (Gerstung theory).

Another explanation: I see, page 113, you have observed the advantages of large hives for development in the spring. An 8-frame hive is entirely too small for this purpose, consequently you give two stories as soon as needed; but these two stories are not practical for comb-honey production, so you crowd the bees and 8 brood-combs again into one story, when the honey-flow commences (page 130). You take away 1, 2 or more brood-combs and at some circumstances some bees, too. I think that is weakening the colony considerable, and your colony is now in just such a condition that the swarming-fever is induced, because the queen has not enough empty cells to lay eggs in them.

I, too, use very large hives in the spring. When the honey-flow commences I crowd the bees into a small brood-chamber *without* brood, and give the supers. Now comes my invention:

By using the Heddon plan to prevent after-swarms, the bees, which hatched from the brood taken away, are united with this colony as soon as they really do field-work, that is, as they fly. Every single bee of the colony, in whatever stage she may be, is used in this colony, as soon as she can be useful, and the egg-laying of the queen is interrupted very little.

You say that with you a colony, which shows no desire to swarm, will give more surplus than one in which swarming is prevented in some way. This is not so in my locality I have no trouble at all with colonies swarming during the honey-flow, but I never could get satisfactory crops of comb honey from an old colony with a brood-chamber as large or larger than a 10-frame hive. Swarms hived just at the beginning of the honey-flow have given me the most surplus honey. But they have the disadvantage, that they are getting weaker every day; but that is easy to overcome. Let the brood hatch in another hive outside of the swarm, and unite with the swarm as soon as they can be useful.

A main advantage of my plan is, that no queen must be hunted up. The whole manipulation does not take much time, and can be done when convenient. I do not think a simpler and better plan could be invented.

I used this plan the first time about five years ago; for two years I have not produced any section-honey, because here bulk-comb honey pays better. Otherwise I would probably have tried a few variations. For instance, the automatic plan of uniting, as recommended by F. L. Thompson, in the Progressive Bee-Keeper, seems worth trying. Another plan proposed by M. R. Kuehne, California, in a letter to me, I will try this year. A colony is shaken on starters and the sections given; on top of them is laid a board with an opening closed by a double wire screen (as the Root's use for getting queens fertilized over full colonies); the brood-combs, with enough bees to protect them, are set in a story over this wire screen. Now these bees in the upper story can rear a queen. I would give them a ripe queen-cell, and as soon as this queen is fertilized and lay-

ing, the wire screen is removed and the two queens can fight it out. It is probable that the young queen will kill the old one. If the colony in the upper story should get too strong, some of the bees can be brushed from the combs in front of the lower hive at any time.

If you prefer not to manipulate the colonies except they have queen-cells, you can wait till the first cell is capped, but then it is time to manipulate the colony. I thought it too much work to examine so many colonies every 10 days.

I hope that you will think better now about this plan.

Bexar Co., Texas.

[Accompanying the foregoing was this from Dr. Miller, to whom Mr. Stachelhausen wrote the above:—EDITOR.]

MR. EDITOR:—One always runs some risk of misrepresenting when trying to describe something with which one is not entirely familiar, and so, when trying to tell what my good friend, L. Stachelhausen, is in the habit of doing, it is not so very strange that I did not speak entirely "by the book." His letter of correction, although not intended for publication, is so full of interest to bee-keepers in general, that I take pleasure in sending it to you that it may have a larger reading.

C. C. MILLER.

## An Overdose of Feeding—Use of Drones.

BY C. P. DADANT.

**A**FTER writing the article about feeding bees in the spring, which appeared on page 149, I showed it to a friend, who read it with interest, and said to me: "Good. I'll follow these instructions myself. It is an excellent system."

A few days later my friend came to me with a complaint. The feeding had not turned out satisfactorily, and his bees were in an uproar. So we went to his apiary and I soon discovered that one of the colonies which had been fed was being robbed. We carried it away, and as the weather cooled off suddenly, we were soon able to open it and discover its condition. It was a very weak colony, covering only two comb-spaces, and the can-feeder which he had used had been placed over a comb two rows away from the cluster. A little honey had dripped to the floor, and as the hive was slanting considerably forward, the honey had run out of the entrance. The robber-bees had found this and had begun pillaging this hive. There was but little to do, the colony being so weak.

This is in line with some remarks that I have made previously. The beginner cannot be too careful how he feeds. Good, average or strong colonies, when fed, take possession of the food at once. They store it in their cells, and although it creates an excitement among them, this soon subsides, especially if the feed is given at night right over or close to the cluster. Whether a can feeder is used, or a frame feeder, or a trough over the bees, or a simple dish in the cap, the warning must be the same.

Feed your bees where they can get at it immediately even if the weather is cool. Do not feed a queenless colony, or a colony that is too weak to rear brood. If a colony is weak but sufficiently strong to rear brood, it may be fed very successfully and helped along, if the feed is given it properly in the right amount and in the right place. The smaller the cluster, the less the amount of feed to be given at one time. Do not use an entrance feeder, as you will have to close that colony to make sure that the bees of a stronger will not help themselves at the same time and overpower them. If you keep it closed you are apt to forget it, or to open it too early or too late.

Let your feeding be done so the bees may get the nourishment in the warm part of the cluster. To feed the weak colony near the entrance or in too large a quantity is equivalent to feeding your newly hatched chicks in the same yard with the grown-up fowls. They will get next to nothing. It is even a worse practice with the bees than with the fowls, because the little chickens are fed from day to day, and you do not expect them to store away any of the feed except in their crops. But your bees are fed for future use, and you must not place them in a position in which the bigger colony may take away from them that which you know they will need for themselves.

All colonies that are worth retaining may be fed safely if the correct amount is given them in the proper place and at the proper time. Evening is always the best time to feed, because the night will give them time to store away out of reach of the neighbors and close to the cluster the supply furnished. They also get over the natural excite-

ment caused by the finding of food. But when all colonies are fed, the strong ones at once begin to send out scouts that lurk about all the unguarded spots and soon find and carry away that which is not sufficiently defended against their depredations.

The Lord & Thomas Advertising Agency have spread over the commercial world a motto which we may well parody. They say, "Advertise judiciously." It is not all to spend money for advertising—that money must be spent "judiciously," or the result will be negative, and you will have cause to blame yourself for your bad luck. So it is with feeding bees, and we may well repeat, when the bees are in need of help, feed your bees *judiciously*.

### USE OR USELESSNESS OF DRONES.

The point made on the use, or rather the uselessness, of drones is well taken (page 195). Those French or German writers, who support the idea of their usefulness because of the warmth they produce are all disciples of the old school. If drones produce heat, it has taken heat to rear them, and the heat and food used in rearing them would have produced worker-bees that are just as able to keep up the warmth of the hive as the drones are. The workers are small, it is true, but they take less room to rear, and consume less honey, and, when they are reared, if they happen to be needed in the field, they can turn out, and do turn out, and put in their time harvesting honey; while a drone is a drone till he is exterminated by the active laborers, after having consumed a goodly portion of the surplus of the colony.

In a state of domesticity we need drones only in a few of the best colonies, and it is a mistake to allow them to be reared in every colony as plentifully as the bees would naturally do it.

Hancock Co., Ill.

## Does Much Egg-Laying Shorten a Queen's Life?

BY DR. E. GALLUP.

**N**OW let us look into the theory that many writers advance, that if a queen lays too much she shortens her life, and will lay herself to death before her time comes, or she will empty her spermatheca and become a drone-layer early in her life.

We will take for an illustration one of the best milking breeds of cows. In order to produce the largest flow of milk, and the richest, all depends upon the amount and quality of her food, good care, etc. Now, do you believe that by extra care, feed, etc., to keep up the greatest possible flow of milk, her life is shortened? If you do, I do not. Neither do I believe the milk extracts from her vitality, but it is manufactured from the food she is fed.

Now, we will come back to the queen. In a normal or naturally large colony, and a good flow of forage, the nurse-bees prepare her food, it is predigested by the nurse-bees, and of the richest kind. They are constantly offering it to her, and during the height of her laying she is constantly accepting it. It is estimated that she lays more than her actual weight in eggs every 24 hours. And are those eggs manufactured by extracting the material from her body, or are they manufactured from the amount of the material or quality that she is fed on? And suppose the flow of forage continues constantly for six months, more or less, according to atmospheric or climatic condition, and we give her abundant room to deposit eggs, and an abundance of bees to keep up the necessary warmth, she can and will keep on egg-laying. What are you going to do about it? That is the question.

Why, if you are afraid she is going to lay herself to death, you can easily stop her laying by withholding her food.

In close observation of my long-lived and prolific queens, none of them diminished their egg-laying perceptibly until they were superseded, and not one of them, so far as I observed, became a drone-layer, as I did not allow drone-comb in their hives, and they were extra-prolific. My experience has been that all such extra-large colonies supersede their queens before I can see any sign of failure. In two cases the queens were superseded in the fall; and both mother and daughter wintered together, and both kept on laying until the following June. I have often wondered if after one impregnation the spermatozoa did not keep on increasing and multiplying in the spermatheca so as to keep up the supply. But, when we consider that the sac may



contain millions of germs in an extra-large queen, as the sac is certainly larger than in one of those small, degenerated queens, it can be accounted for, as we certainly know that there are lots of them that become drone-layers the first or second season, and I never have seen spring dwindling with long-lived queens and long-lived workers.

The first colony of bees I ever purchased was when I was 15 years old. It was in an old-fashioned straw skep, as they were called then. I had bees before, given me by my aunt. I paid \$7.50 for the straw-hive colony—an extra price because it was the old lady's lucky colony. You see I purchased her luck. I was bound to start right.

The hive contained about the same number of cubic feet or inches as a double 10-frame Langstroth hive. That was in Canada, 65 miles north of Vermont. They were kept in an open shed, built on purpose, facing the southwest. Our winters were long and cold, yet that colony wintered perfectly every winter—no dead bees on the bottom-boards. They came out as strong in the spring as they went in in the fall—no dysentery and no spring dwindling; all the comb was worker, except a very small piece of drone-comb in one side of the hive, about the size of my hand.

I always had one or more swarms from that colony, and usually a 20-pound box of honey in a season, and all the queens from that colony were of the large, long-lived variety, and very prolific. Of course, neither Gallup nor Alley ever monkeyed with them in the rearing or introducing of them, so there was nothing unnatural about them.

I saw my first queen from that colony—they were called "kings" in those days. I was taught by my aunt to ring bells, rattle old tin pans, etc., to make them cluster, then spread a white sheet in front of the hive, shake the bees on the sheet and watch them run in, and so I saw my first queen. She looked extra-large to my eyes at that time. How long they had been kept in that hive and reared in that comb I had no means of knowing, but this I do know, the combs became so full of cocoons that the bees became mere dwarfs and ceased to swarm or produce any profit whatever, and finally "went up the spout." Ever since that experience I do not keep old black combs for breeding. Of course, some writers claim that the age of the comb makes no difference in the size of the workers, but they are grandly mistaken. I know better.

Several writers are afraid there will be no limit to the size of the hives or queens, but there is, all the same. I have found that the 2-story Langstroth 10-frame hive is about the safe limit, as to size of hive, or one-story 20-frame hive for experimenting with. Now, the reason I have recommended queens reared in such a hive, and by natural swarming is, that I know that queens thus reared have the umbilical cord attachment, and I am not certain that queens reared by any other method do have that attachment, although we comply with all other requirements, such as abundance of nourishment, warmth, etc. That queens are reared with that attachment is a positive fact. You chaps that deny this, bring to my mind an old story in my life that I must tell now.

I was attending the County Fair at Ripon, Wis., and, of course, as usual, had quite a crowd around me listening to me talking bees, and among the crowd were two old gray-headed gentlemen, who showed by their actions and looks that they did not believe all my "yarns." Finally one of them spoke up and said:

"Look here, young man; I am an old man, have kept bees for years, my father kept bees for years, and my grandfather before us kept bees for years, and none of us ever saw such a bee as you describe; therefore I know there is no such a bee in a hive."

So you can see how easily a person can be mistaken. Because you have not seen the umbilical cord, and no scientist has ever made the discovery, you think your argument is on a solid foundation. Any person can demonstrate this, but not by looking for it on queens improperly reared.

Why is it that so many queens sent out do extra well the first season, but fail entirely the second season?

Orange Co., Calif., Dec. 28, 1902.

**Our Wood Binder** (or Holder) is made to take all the copies of the American Bee Journal for a year. It is sent by mail for 20 cents. Full directions accompany. The Bee Journals can be inserted as soon as they are received, and thus preserved for future reference. Upon receipt of \$1.00 for your Bee Journal subscription a full year in advance, we will mail you a Wood Binder free—if you will mention it.

## Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

### Dimensions of a 10-Frame Hive.

What are the inside dimensions of the Langstroth 10-frame hive? We have started with one colony, and would like to make our own hives until we can get enough colonies so that we can get five at a time.

Union Co., S. Dak.

MRS. GEORGE S. EDDY.

ANSWER.—18¼ inches long, 14¼ wide, and 9½ deep.

### Lotion to Whiten the Skin.

A lotion to whiten the skin is made by combining four ounces of extracted honey, one ounce glycerine, one ounce rosewater, three drams citric acid, and six drops of the essence of ambergris. Apply a little to the face and hands two or three times a week, using a linen pad for the purpose.—Chicago Daily News.

### Clarified Honey for Brilliantine.

On page 152, I saw a recipe for brilliantine for the hair, and as I am not sure what is meant by clarified honey, will you please tell me? I shall be grateful, as I have been looking for something of the kind for some time.

Montezuma Co., Colo.

MRS. OLIVE GEORGE.

ANSWER.—The recipe that you mention is not mine, but one copied from the "Health and Beauty" department of the Chicago Daily News. What is meant, I think, is a good quality of extracted honey.

### Overstocking a Locality with Bees.

I notice on page 167, the answer to Mrs. E. K. Hoffman's inquiry as to how to get into bee-keeping, and the statement that if the ground was fully occupied by other bee-keepers it would be trespassing to start another apiary.

I am inclined to the opinion that that is putting it a trifle strong. I would say it would be discourteous, and unkind, and unprofitable in the end. But no worse than to start a grocery store on a street that was fully occupied, which happens quite often.

I kept bees in an alfalfa district last season, and it is my opinion that there is very little danger of overstocking an alfalfa district.

The American Bee Journal is very much appreciated and carefully read by me.

B. F. L.

If there is no danger of overstocking an alfalfa district, then there is no need of any further talk on the subject, but the actual fact is that some of the bee-keepers in the alfalfa districts of Colorado are complaining that already their districts are overstocked.

It does not seem to me that the case of the grocer is a parallel one, although, perhaps, most people who have not given the subject much thought would agree with you.

In the first place, there is this radical difference: If several men occupy the same field with bees, each man will get his share of the pasturage in proportion to the number of colonies he has, while the grocery trade is by no means in proportion to the capital—the hustler may outsell his competitor with double the capital.

Suppose there are five grocers in one place, fully occupying the ground and doing all the business; and a sixth one starts a store. Now, there are three things possible:

1st. Those five grocers already in the field may be able to hold their trade in spite of the interloper, and he may get nothing to do, and be obliged to quit the field.

2d. The new man may be such a hustler that he will entice some of the others, and so get his share, thus reducing the trade of the others.

3d. There may be extra exertion on the part of all, and they may reach out to more distant points, increasing the

total business so that although the new man gets a share the old ones will do as much business as ever.

Neither of these three cases will be entirely the same in bee-keeping. The first case is entirely impossible, for the new comer will get his pro rata portion of the nectar in spite of any effort on the part of the others.

Something like the second case may happen, but there is this great difference: The encroaching grocer is at a disadvantage, for the others have the advantage of an established trade, and it is not the placing of his capital there that gets him his trade, while the old established bee-keepers have no advantage, and the new man is sure of his share of the trade (nectar) merely by placing his capital (colonies). The third case is utterly impossible in bee-keeping, for the bees can only forage within a fixed limit.

The case of the stock-raiser would be a more parallel one. If a stock-raiser had a field fully occupied, and another man should come and dump into that field a bunch of cattle to be fed, he would be much like an interloping bee-keeper. But the stock-raiser may have a legal claim to the ground, while the bee-keeper has only the moral claim of priority.

Truth compels me to say that these views are not original, but obtained from one who has given the matter much thought.

### A Beginner's Troubles and Questions.

This is a nice country for bees, and we bought 7 colonies last spring. We had good luck in getting nearly all the swarms, but as we did not know anything about bees we did not take care of them as we should, although we tried our best, and now we are losing our bees, which is quite a loss to us in our circumstances, just commencing in a new country.

The bees did quite well in the summer, considering the cool weather we had. We put 20 colonies away last fall—heavy colonies—but not knowing about feeding bees, as now we have found out in reading the American Bee Journal, our bees did not have proper attention. As there is no one near that we can find out anything about bees from, I thought perhaps you would be kind enough to answer some questions, and maybe we could save enough of our bees to start with in the spring.

We had intended buying our hives and supplies soon, but it begins to look as though we will not need them. If we lose all our bees we will not be able to start again this year, and it discourages us very much. We intend to build this summer, and would have a good cellar another year for them. I suppose the place we have for them is not proper, but we heard of a bee-keeper in southern Minnesota that had this kind of a place. It is a house double-boarded, tar paper between. It is dark in there; we have the bees tiered one hive upon the other.

We tried to get some Porto Rico sugar, as given in "A B C of Bee-Culture," but we could not get it, so we are using light brown, and 2 colonies have died since we commenced feeding them. They are all short of stores, and others are getting smaller. We also lost 2 colonies that had plenty of honey, so we do not know the reason. We have lost 5 colonies already, and I am afraid, from the way they look now, that we will lose them all. Do you think it would be better to build a shed and leave the south side open so the sun can shine on them?

Would granulated sugar be best to feed them? We followed the directions given in the "A B C of Bee-Culture" for early spring feeding. The bees seem to like it; it forms a syrup, but perhaps that is not best to use.

We think we are through with the coldest weather now, and if we could only save enough bees to start again I should be glad, and would try to learn more about them.

I thought perhaps you would tell us something about what would help us. I don't know where else to get information. We made our hives last summer. Also let me know something about feeding. Would old cloths be all right to put over the brood-nest to keep the bees warm? You know our hives are different from yours. We haven't the quilts in ours.

Could we put some colonies together, as some have died, and there is only a small colony left?

How about the queens if we try to unite?

We have had some warm days this winter, and I thought perhaps we could unite some and feed. We have no honey to feed them.

You will see by my letter we are very ignorant as to how to take care of bees, but I hope we may improve.

Mrs. C. G. CRUICKSHANK.

Crow Wing Co., Minn., Jan. 20.

A repository above ground, closed as yours, is not a good place generally, neither is a shed facing south as you propose, unless the bees are packed on all sides excepting the south. But it will not be best to make any change until there comes a day warm enough for the bees to fly. On a still day with the sun shining they will fly when the thermometer is no higher than 50 degrees. It is now getting along toward spring so close that it is possible that all that will be necessary will be to set them out the first day they can fly and leave them out, but it will be much better to give them some protection, if it be nothing more than to pile corn-stalks about the hives.

I am glad you have a text-book to consult, but I think if you will look again you will find that it advises granulated sugar for feeding. Neither is *spring feeding*, but winter feeding the thing for you. Spring feeding is not to be considered until bees can at least fly every few days. I think your text-book will tell you that you should not feed syrup of any kind in winter, but candy made of granulated sugar. If this is made in frames, or in cakes and laid on top of the frames covered up warmly, you will have done the best thing you can for your bees, so far as can be judged from what you have written.

## \* The Afterthought. \*

The "Old Reliable" seen through New and Unreliable Glasses.  
By E. E. HASTY, Sta. B Rural, Toledo, O.

### METHOD OF STARTING QUEENS IN AN UPPER STORY.

So far as words and names go, Stachelhausen's method of starting queens in an upper story is a sort of a swindle. His upper story is on the bottom-board, and the queen and main colony elsewhere at the time. Practically, however, I guess he has a splendid idea—take the bottom story entirely away for one day, and then bring it back. All protracted monkeying on the part of the keeper, and waste of time on the part of the bees, are thus shut off, and you *know* your cells are being started. Yet the advantages of rearing queens above an excluder are kept, most of them. I did not know the plan of getting the queen fertilized from the upper story was abandoned, and was a little surprised to hear Mr. S. say so.

Interesting to see that Stachelhausen thinks the larvae usually taken for the Doolittle method are not young enough for the very best results—would sooner take them an hour or two before they hatch than to wait many hours after. And so, perhaps, it is a good plan to repeat this sentence of his:

"After trying all the different methods I went back to the Alley strips—and can't help believing that if the artificial cell-cups are preferred it is merely a case of fashion." Page 151.

### HONEY FOR SWEETENING FRUITS.

Mrs. J. L. Strong finds the sweet of honey harmonizes well with most fruits, but that *apples* are an exception. Kind o' seems to me I have had occasion some time to notice that honey and apple-sauce made a bad combination. Unless somebody comes forward to report success in sweetening apples, let that stand for the present as disapproved. Page 152.

### CONSUMPTION OF STORES IN WINTER.

On page 158, H. B. Stumpe's experiment is instructive. A good colony taken out to fly in winter used up eight pounds of food in the one month next succeeding, while the others used only seven pounds in all winter. Presumably this extra eating was caused by extra brood-rearing—and that is undesirable in the cellar. The widely different results of winter flight seem to be explainable on this line. Sometimes it has no effect but the good ones of airing and drying both bees and hive, stopping the worrying, and giving the bees a chance to empty their bowels. Sometimes, in addition to these good things, a great lot of brood gets started, and soon the bees are in a worse condition than before.



## USING THE SMOKER—FEEDING A NATURAL SWARM.

And so with G. B. Williamson's style of fuel and smoker, one smoker full will last half a day if you don't use it much. Some of us use our smokers.

Natural swarming is indeed good practice; but if you set it down that natural swarms never have to be fed you'll get badly left some time. "Left" is the exact word. A hungry swarm hangs together almost winter-cluster style for a good, long spell, and then seizes the first bright, warm hour to leave the ranch. Page 156.

## A MODERN ENTHUSIAST—NUMBERING QUEENS.

So many have grown staid and half-way cold that it is delightful to read once more a genuine, intelligent enthusiast. This is anent William W. Green and his apiary, pages 161 and 162. His report of the Cyprio-Carniolan cross is worth its place, certainly. How nice it would be if the qualities of a first cross would only stay so, instead of getting "every which way" with succeeding generations!

Having the hive-number belong to the queen and travel around with her is nice—in some respects—not nice to have numbers die, as queens eventually must. And for big apiary and cold heart it wouldn't do at all. The maxim that "figures can not lie" would get all battered up.

## A RECORD ON INCREASE.

Sixty-five colonies against his will, and no bees or queen to make them of but one wandering swarm, is quite a record—a record which Mr. Peter Gallee may hold until somebody calls "Sixty-six!" on him. Page 162.

## THE DIAMONDS DIDN'T SPARKLE.

But Mr. G. H. Wells couldn't get his bright, red diamonds, with black figures inclosed, to impress their prettiness on us in the picture. Never mind, Mr. W., we know they are pretty—and also impress you with a sort of my-own-ness, which is a good thing to have. Page 161.

## THE "VIRGIN" APIARY.

The three modern hives and one old memento of C. W. Virgin constitute the most restful and rural view of the four. The grove looks almost like a natural forest. Nothing says, "Hustle!" nothing says, "Crowding here!" Page 161.

## Questions and Answers.

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

[The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.]

## Colony Left the Hive.

I had a swarm of bees come out to-day, or left the hive. I had been feeding more or less for the last two months. There were no young bees in the brood-chamber, or sealed brood. What was the trouble with them? I am a beginner, having kept two or three colonies for the last two years. IOWA.

ANSWER.—Possibly it was a hunger swarm, the bees leaving the hive because they had nothing to eat. Sometimes, however, they leave the hive when there seems no way of accounting for it except pure cussedness.

## Using Hives Where Bees Died—Spraying Fruit-Trees.

1. I have lost 9 colonies of bees this winter. Will it do for me to put new swarms in the combs of the hives again, when they swarm this summer?

2. A man living a mile from where I do is going to spray his apple-trees with Paris green this spring. Will my bees bring it home to their hives? NEW HAMPSHIRE.

ANSWERS.—1. Yes, it will be all right.  
2. If fruit-trees are abundant, your bees may not go so far. If scarce they will be likely to visit those trees when in bloom, and if he should spray during bloom it would mean death to the bees. But if he is an up-to-date fruit-grower he will spray only before and after bloom. The experiment stations have clearly settled that spraying during bloom is a damage to the fruit crop, and in several States it is against the law to spray during bloom.

## Burr and Brace Combs—Telescopic Hive-Covers.

1. I am only a beginner, having 3 colonies in Danzenbaker hives. One has built burr and brace combs until I dread opening the hive. Would there be any danger of chilling the brood if I were to drum them into another story, after settled warm weather is here, putting a queen-excluder in to keep the queen above?

2. Would full sheets, starters, or old comb be better for their new place? I would prefer to have them build new comb, because the old comb is crooked (taken from a box-hive), and naturally leads them into bad habits of comb-building.

3. I have some telescopic covers. Is it necessary to have more than the thin super-covers if they are used, or is a heavy cover, Root's E or F, required also? MARYLAND.

ANSWERS.—1. There would be no danger of chilling the brood, and it might work all right and it might not. I knew one case in which the queen staid over the excluder two or three weeks and never laid an egg. Put the queen and the new story under the excluder.

2. Full sheets.

3. With a telescopic cover the thin super-cover is all that is needed.

## Transferring—Getting Bees Out of an Old House.

1. Can bees be transferred at this season of the year (March 30)?

2. How can it be done to the best advantage?

3. How does Mississippi rank as a honey-producing State?

4. How can bees be gotten out of the loft of an old house? Can they be driven out with smoke? MISSISSIPPI.

ANSWERS.—1. Yes, any time when it is warm enough. Much transferring is done in time of fruit-bloom, which is much earlier, of course, in Mississippi than in the colder North.

2. I don't know of anything different from the instructions laid down in the books. But it might be better to wait till 21 days after the issuing of a prime swarm.

3. I have no definite knowledge about it.

4. It depends upon position, etc. If where you can readily reach them, smoke enough to quiet them, and then cut out the combs.

## Keeping Bees in a House Room.

I have a room in the second story about 10 by 12 feet, with one window. By opening the window about 6 inches, and tacking sheeting over the remainder of the window, could I keep colonies of bees in the room? and would they go to and from the room and be able to locate their own hive on returning? I am living in the city, and want to accommodate 10 colonies that way, if possible. ILLINOIS.

ANSWER.—I'm afraid your plan wouldn't work satisfactorily. Bees cannot see as well as you, and with so little light they would hardly find their hives, especially when cloudy. It might do if you should leave the whole window entirely open, with an awning to keep out rain. Or you could have holes through the wall to each hive.

## Cutting Out Drone-Comb—Moldy Drawn Comb.

1. If I go over each colony and cut out the drone-comb, will the bees build worker-comb in the space, if it is done when I put them out?

2. I have several frames of drawn comb that are moldy, and have quite a lot of dead bees in. Will the bees clean them out? and when and how is the best time to have it done? MINNESOTA.

ANSWERS.—1. They will be nearly sure to fill in drone-comb. Fill in the holes with patches of worker-comb.

2. They'll clean 'em up all right. Give them wherever needed, and if you have no immediate use for them do this way: Put them in a hive-body and set under a good colony, so the bees must pass through them in going in and out, and the bees will clean them. Do it any time.

## Bees that Allow Robbing.

What can be done with bees that allow themselves to be robbed without making any resistance to the robbers? I have several colonies every spring destroyed in this way. They just work away and pay no attention to the robbers, even right through the fruit-bloom. They do not seem to distinguish the robbers from their own bees, or else do not care. I have tried everything I know, and without avail. The bees are not queenless. PENNSYLVANIA.

ANSWER.—I have never had any experience in this line, and don't know what can be done. But others have reported the same difficulty, and some one may be able to give the remedy; so the question is referred to the constituency.

## Transferring Bees—Using Sun Wax-Extractors.

I began the bee-business in August, 1902. I bought over 30 colonies in boxes. I have lost 7 by starving, or at least 5 by starving and 2 by moths. My bees that were able to be robbed last year are all right now; they are gathering in pollen by the wholesale. I tried transferring one colony yesterday morning. I fed them with some others which I am feeding, and then, in the evening I drummed them

in a frame hive. They seem to be all right to-day. I thought I would feed them for awhile and let them go. The fruit is just beginning to bloom here, and so I thought I would try that one to see how it worked, and it worked like a charm. I have 7 others to transfer.

1. Do you think it advisable to transfer the balance of them at present (March 22), or wait until April?

2. Do you think the bees will starve after they begin to bring in pollen?

3. Do you think it is a good idea to fill a sun wax-extractor full, or just put in a little comb at a time? It is 12 inches high, glass top, you know.

TENNESSEE.

ANSWERS.—1. Now is a good time to transfer, while fruit is in bloom; but it may be still better to transfer each colony 21 days after it swarms.

2. Generally not, but sometimes there comes a dearth, when they must be fed or starve.

3. If there are no combs that have been bred in, you can fill up, but if you put anything over an old comb the cocoons will hold the wax like little cups.

### Bees Standing on Heads—Frames Bee-Glued.

1. What is the matter with my bees? They seem to stand on their heads, and roar around the entrance.

2. What shall I do when frames are glued together? My frames are Hoffman frames, and are glued tight to the excluder, so that it breaks and tears up the frames to get them loose.

TEXAS.

ANSWERS.—1. They are probably ventilating, making their wings move lively, so as to change the air in the hive.

2. Fry up the excluder carefully, starting it at different places, and then scrape off the burr-combs. Then don't let them go so long without cleaning again. You see it takes time to get in such bad condition, and likely you have not cleaned them off for several years.

### No Italian Blood in Them.

I enclose six honey-bees, the kind I keep. Is there any Italian in them? If not, what are they?

NEW JERSEY.

ANSWER.—The bees received are of the kind called smashed bees. Before they were smashed I think they were black bees, with no Italian blood in them. It would be easier to tell if they had been sent in a tin or wooden box, or in a block with a hole bored in it.

### Shipping Nuclei—Bees Building Comb.

1. I have a customer who wants a queen and nucleus. How shall I send them? Are there cages for that purpose?

2. What is most profitable, full sheets of foundation or starters? Some say the bees produce so much wax when they are building comb, even if we furnish them old comb or foundation. How is this?

IDAHO.

ANSWERS.—1. The usual way is to make a cheap affair in the form of a hive large enough to take three or four frames, well provided with wire-cloth, the frames when received to be put in full-sized hives. I do not keep anything for the purpose.

2. For most persons I believe full sheets are best. I always use

them. Some wax may be secreted when not needed, but not a great deal. If the demand had nothing to do with the supply, we ought to find scales of wax to the amount of several ounces under a swarm hived on full combs, whereas you will find little difference in the amount of these scales whether full combs or empty frames are used.

3. You will find Miller queen-cages on the price-lists of supply dealers, but these are not the improved Miller cages described on page 246 of "Forty Years Among the Bees." I consider the improved decidedly better; but others may not think so.

### Keeping Down Increase—Rearing Queens.

1. I have 5 colonies of bees, and do not wish to increase. What would be the effect if I should leave on the entrance-guard all the season? Would the bees kill the queen after repeated efforts to swarm?

2. How long would it be safe to keep the young queen confined?

3. Would she be apt to lead off a swarm when she took her flight to meet the drone?

4. Would the plan prevent the bees from absconding?

5. Can I rear a good queen in a small nucleus by giving plenty of bees and cells that are started in a strong colony, say cells 12 days old?

WISCONSIN.

ANSWERS.—1. Yes, they'd kill her.

2. Till you hear no more piping.

3. No more than in usual cases.

4. Yes, if you have only one colony; but with numbers there will be doubling up, going into wrong hives, and other troubles. I tried the plan thoroughly and it's bad.

5. Yes.

### Queen-Cells in February—Foul and Chilled Brood—Unfinished Sections.

1. February 24 I opened a hive in which I thought the bees were starving, and upon examination I found it had 3 capped queen-cells. This colony had a queen in the fall. What is the cause of these queen-cells appearing at this time?

2. What is the cause of bees crawling in the cells of the brood-frames and dying? They seem to be all right in every other way.

3. Would it be safe to let them keep these combs, or give them clean ones?

4. Last year I was bothered with black spiders and moth. Do they come back every year? What is the best way to get rid of them?

5. How can a person tell the difference between foul brood and chilled brood? I can find nothing regarding chilled brood in the text-books.

6. I have some unfinished comb in sections that are partly filled. Would it be safe to let the bees finish these?

ILLINOIS.

ANSWERS.—1. Some accident might have happened to the queen after you saw her in the fall, or the queen may be played out.

2. Likely they were caught by the cold away from the cluster.

3. The bees will clean them.

4. Yes, you will find them faithful in their visits. Try to have no lurking places for the spiders, and have your colonies so strong that the bees will clear out the moths. Italians are much better than blacks to keep out moths.

5. Chilled brood doesn't string out like foul brood.

6. The honey will not be so good in them.

## A Few Cheap Smokers!

We find we have on hand a few slightly damaged Clark and Bingham Bee-Smokers, which got a little damp and soiled at the time of the fire in the building where we were about 2 years ago. They are all almost as good as new.

We have some of the Clark Cold Blast, which when new sell now at 55 cents each; some of the Large Bingham—new at 65 cents each; and some of the Little Wonder Bingham—new at 50 cents. But to close out those we have left that are slightly damaged, we will fill orders as long as they last at these prices:

Clark at 25 cents each; Little Wonder Bingham at 30 cents each; and Large Bingham at 40 cents each.

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## FROM MANY FIELDS

### Wintered Well.

Out of 159 colonies of bees put into the cellar last fall I have found 4 dead. The others seem to be in fine condition. I have 12 colonies packed outside which have not been inspected.

H. W. CORNELISON.

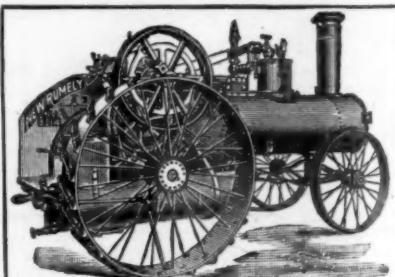
Washburn Co., Wis., March 21.

### Bee-Keeping in Florida.

Bees in this locality are usually kept in a very primitive way. March 20 I visited an apiary of 30 colonies, located in a persimmon grove, on fine Bermuda sod, and surrounded with a picket fence. But the hives—not worthy of the name—hollow logs with a board on top. I told the owner that if I were the bees I would not work in such things. The bees were very diminutive blacks.

I went with a party, in a sail-boat, who went there to purchase honey. The apiarist had no comb honey, but thick strained honey which he sold for 75 cents per gallon, or 20 cents per quart. He took no bee-paper, but had often thought of getting patent hives.

A species of wild sage was blooming very



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abundantly all around in the vicinity of this apiary, and the owner said that it was fine for bees. There are many resources for honey; during March, yellow jessamine, ti-ti, sage, fruit-blossom of many kinds.

The most of the people living on home-steads in the piney woods keep a few colonies in log gums. On my asking them if they had much honey last year, they invariably answered, "I have not robbed them yet; we don't care for honey; prefer syrup."

From my observations I think bees consume more honey in this climate than in a cold one. They work all winter, carrying pollen and a little honey, and are usually cross. What they store during the spring flow is consumed during drouths in summer. I am often told, "My bees all starved during the drouth last summer," or, "The moth ate them up." So the winter of their discontent is not by freezing, but the opposite—heat and lack of moisture.

An intelligent bee-keeper, who lives on the St. Johns river, told me that the best localities in the South for profitable bee-culture were very malarious, and had many annoying insects.

Mrs. L. HARRISON.

Washington Co., Fla., March 23.

### Shaken Swarms—Sweet Clover, Etc.

Lately I have noticed a number of articles on "Shook Swarms" and "Sweet Clover," and thought I might add a little of my experience.

I bought my first swarm when I was 16 years old (about 10 years ago).

For the first 3 or 4 years my bees did not do much swarming, owing either to mismanagement or the season.

As increase was what I wanted, I tried some experiments along that line. I tried dividing the bees, brood and honey, leaving one or two nuclei to rear a queen on the entrance of an empty hive and letting them run in; but results were not satisfactory.

The first artificial swarm that pleased me was hived in July, on 10 frames with starters in the brood-nest and 9 frames with full sheets in the extracting super. They built full a set of brood-combs and stored enough honey in them to winter on, besides 60 pounds for me in the upper story; this was about 5 years ago. Since then I have practiced the same system with many others, which would be like this:

Take 3 or 4 boxes (cracker-boxes for instance), lay one down on the side with the edge on the hive-cover or sheet by each colony you wish to shake from.

Then smoke and drum on the first two colonies you intend to shake from. When this is done start at No. 1, pick out combs, one or two at a time, and shake in front of the clustering-box; work fast and use the smoker some to hurry them into the clustering-box.

When the combs have all been shaken, and you know the queen is in the box, put on the upper stories, if any, and cover.

Proceed to No. 2, and so on until each box has a "shook swarm" clustered in it. Now, if enough time has elapsed to make them feel homeless, commence with No. 1, and take them to their new home, which should be in readiness. Shake them down at the entrance the same as a natural swarm, and they will hive themselves.

I have made as many as 20 or 25 in one afternoon.

I notice that some writers are afraid sweet clover will not stand close pasturing. That has not been my experience. We have about 15 acres of sweet clover on clay point in a pasture of 80 acres grazed by cattle and hogs. It comes up every spring and keeps spreading. In 1891 the blue-grass and timothy all dried up, but this clover furnished feed for the stock and some honey for the bees. It was cropped so short that the blossoms laid on the ground, and the bees could walk from one bloom to the other without wearing their wings out.

We had about an acre on rich low land that got the start of the stock in the spring, and grew higher than the backs of the cattle and horses. The neighbors thought this was queer stuff to sow for pasture, but when the dry weather came, in July and August, feed got

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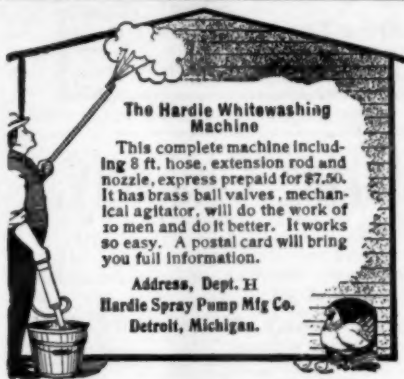
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so scarce, and the stock commenced on this and trimmed up everything they could eat, leaving it looking like a mess of hazel-bush; it seemed to thrive as well as ever, new shoots kept coming out, and they were as fast eaten off, until freezing killed it.

I should like to ask Mr. Barber (page 78): Why put anything in his honey to keep it from granulating? If it is pure, put into a tank and heat from 160 to 170 degrees, and use a thermometer to be sure about temperature. Out of 600 pounds which I canned while it was hot, 5 months ago, only 54 pounds has shown any signs of grain in it, and this had been heated, for experiment, to 150 degrees and had candied again.

Why cut your comb honey in chunks, and put into cans for "extracted" or "comb"? It is neither one nor the other. It seems to me that the wholesale grocers put enough of this stuff on the market without imitating them. It seems to me that if a customer wants comb honey let him have it straight, and extracted the same. If a bee-keeper is not neat enough to produce one or the other, why mix them?

No offense meant, Mr. Barber. I suppose others are doing the same. This is the way I look at it.

B. A. ALDRICH.

Woodbury Co., Iowa, March 9.

### One of the Olives.

What is the enclosed domestic shrub? It is our earliest bloomer, and is attractive to bees.

EAST TENNESSEE.

[This is the first flower of the season. It belongs to the Olive family along with the ash and lilac, but as a native of Japan and China no common English name has been given to it. Botanists call it "Forsythia viridissima." It is an ornamental shrub, the abundant bright yellow flowers appearing before the leaves.—C. L. WALTON.]

### Prospects of an Early Spring.

We are having very nice weather, and it has the appearance of an early spring, with the temperature between 65 and 70 degrees, which has brought the maple to bloom, and the busy bee is once more bringing in pollen from the first flower of the season. The robins and the bluebirds have also made their appearance, and fill the air with their sweet music, to remind us of the beautiful spring-time.

My bees have wintered well, having lost only 2 weak colonies, and the remaining 52 colonies are doing nicely on maple bloom. The prospects are bright for 1903.

WM. H. HEIM.

Lycoming Co., Pa., March 20.

### That Old Colony—Wintered Well.

Mr. Hasty must not be too hasty about that "old colony of bees" mentioned on page 184. If he will put on his "specs" and look at the article again, he will see plainly that said "old colony" belongs "to a stock of bees that were on the farm of my uncle, Wm. Sager, near North Bristol, Ohio, for over 90 years before I brought them over here," instead of saying that said "old colony" was over 90 years old.

The name of my aunt should have read Mrs. Elizabeth Diehl, instead of Duhl. She has since gone to her rest; having died Nov. 28 1902.

I was very sorry to hear of the death of Thomas G. Newman. I met him at 2 conventions of the National Bee-Keepers' Association, at Columbus, Ohio, in 1888, and in Chicago, in 1893. So they go, one by one—Charles Dadant, Dr. A. B. Mason, "Rambler," and next Thomas G. Newman, all in less than a year. I never met Father Dadant or "Rambler," but I had met Dr. Mason several times, and I regarded him as a very dear personal friend, and I was very much grieved to hear of his death.

Bees have wintered very well, and have been carrying in pollen lively for several days. March 14 was the first day I noticed them carrying it in. There is lots of white clover,



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and if we have the right kind of weather we may look for a good honey season the coming summer. I hope this will be a prosperous year for bee men and women all over the land.

J. S. BARR.  
Trumbull Co., Ohio, March 26.

### Wintered Well—Good Year Expected.

As far as I know the bees have wintered quite well in this community. We put them on the summer stands March 12, the earliest for a good many years. We lost only 2 colonies (queenless) out of 101 put in the cellar last December. March 13 the bees flew like they do in the summer, and March 18 the mercury went up to 78 degrees. Soft maple is in bloom, and it was like summer all around, even in the bee-yard, bees carrying in both pollen and water, cleaning house and trying the strength of the weak colonies by trying to rob.

Indications point to a good year for both the bee-man and the farmer. **L. G. BLAIR.**  
Grant Co., Wis., March 19.

### Looks Like a Good Year.

The American Bee Journal has been a great help to me, as I am just a beginner in apiculture, starting in last spring with 6 colonies, 5 of which I bought in box-hives, and transferred them to Langstroth hives, which I made myself. I now have 11 colonies, having lost 2 that starved on account of my being sick at the time they should have been looked after.

March has been warm and rainy so far, and to-day the bees are busy around the soft maple, which is just beginning to bloom, and with plenty of sweet clover it looks as though we were going to have a good year for honey.

**HARRY S. CRAIG.**  
Madison Co., Ind., March 12.

### Nice Weather—Prospects Good.

We are having nice warm weather, and the bees are carrying pollen, and a little honey. I examined my bees carefully and find 2 colonies queenless. They are strong, and have lots of honey. We never had better prospects.

We have about 20 or 25 acres of crimson clover, and a few acres of Alsike, and the prospect is good for lots of white clover.

**L. A. HAMMOND.**  
Washington Co., Md., March 3.

### Organization in California.

Thus far the prospects are good for a honey crop in this part of the State.

Bee-keepers are watching with considerable interest the progress of the California National Honey-Producers' Association. I think if they have an honest set of officers at the helm, and the Constitution and By-Laws are gotten up with an honest purpose, and the producers will take a proper interest, with a competent manager at the head, something can be accomplished for the good of the fraternity. I know I for one am in favor of organization, as I have had some loss by a commission merchant in San Francisco this season, and it would naturally set one to thinking what is the next best thing to do. But that little word "if" stands in the way quite often in our lives. **CHAS. D. BROWN.**  
Placer Co., Calif., March 3.

### Season of 1902—Taking Bees Out.

Last year, from 96 colonies, we got about 13,000 pounds of extracted and comb honey.

Last season, when we had a swarm, father said I could have it if I would hive it, so I went to work and hived it, gave it one frame of comb drawn out, and the remaining 7 of foundation not drawn out. In a few days I looked in and saw the queen was laying, and in about another week I looked in again and saw they had almost all their frames of foundation drawn out; in a few days we put on 24 sections. When we took them off in the fall they had 20 out of the 24 filled with honey of fine quality.

From 96 colonies we increased to 105, and

## Tennessee Queens.



Daughters of Select Imported Italian, Select long-tongued (Moore's), and Select Straight 5-band Queens. Bred 3 1/4 miles apart, and mated to select drones. No bees owned within 2 1/2 miles; none impure within 3, and but few within 5 miles. No disease. 30 years' experience. **WARRANTED QUEENS**, 75 cents each; **TESTED**, \$1.50 each. Discount on large orders. Contracts with dealers a specialty. Discount after July 1st

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9A26t **SPRING HILL, TENN.**  
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100 17 frame-Hive Colonies at ..... \$3 50 each  
150 3-frame Nuclei at ..... 2.00 each

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Perfect in construction and action. Hatches every fertile egg. Write for catalog to-day.  
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that the freight rates from Toledo are the lowest of any city in the U. S. We sell

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Poultry Supplies and Hardware Implements a specialty. Send for our free Illustrated Catalog. Honey and Beeswax wanted.

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**TOLEDO, OHIO.**

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## The Danz. Hive

### The Comb Honey Hive.

We sell it. We are authorized jobbing agents for **THE A. I. ROOT CO.**, for Michigan. Send us a list of the goods you want for this season, and let us quote you prices. Beeswax wanted. Send for catalog.  
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10A17t **BELL BRANCH, MICH.**



### If We Offered

PAGE Fence at the price of others, we'd have to use their kind of wire. We won't do that.  
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put 48 into the cellar, and left the remaining 57 outside. The ones outside had several flights; if the weather is the same to-morrow we will take those out of the cellar.

In a recent number of the American Bee Journal there were some hints on taking bees out of the cellar. Last spring we took ours out—they were out five or six days, and had some fine flights—when the weather changed, and we had to put them back into the cellar for a few days, when we brought them out for the summer. The flights of those few days saved almost all of the colonies.

FRED BANKER (aged 14).

Brown Co., Minn., March 21.

### Wintered Well and Appear Strong.

I am pleased to say that all my colonies wintered well, and appear strong. I have found quite a little capped brood, and queens are laying nicely.

F. H. DRAKE.

Worcester Co., Mass., March 10.

### Honey Crop Outlook Good.

The outlook for a honey crop is good. White clover is in fine shape, and the bees have wintered in fine condition so far. I have lost but one colony, and still have 110.

THEO. S. HURLEY.

Tama Co., Iowa, March 14.

### Some Results of Bee-Keeping.

I like the American Bee Journal very much. I have been keeping bees about five years. I commenced with 2 colonies in box-hives, one of which I have yet. I did not know much about them at first, except what I could pick up from bee-keepers. I put away 12 colonies last fall, and sold about \$140 worth of comb honey last year, all white honey. We did not have any fall flow here.

I think beginners should have a text-book and bee-papers.

V. VAIL.

Winona Co., Minn., March 23.

### Worcester County Convention.

In a former letter I mentioned an immense swarm of bees that had taken possession of an attic-room 50 years ago. At the regular meeting of the Worcester County Bee-keepers' Association, held March 14, the owner of the building announced that the bees disappeared some time early in the fall, but could not give any reason for it. The room, as it was partitioned off for the bees, was about 8 feet square. It is like a great hive, with comb upon the walls, and all over the original hive, which was placed in the middle of the room. The floor is nearly covered with honey from broken comb, which has fallen from the walls. From this latter fact Pres. Prouty thought that mice or cold weather were to blame for the dismantled condition of the room.

The secretary read a very interesting paper on "Spring Management," by C. S. Blake.

The story of an Illinois bee-keeper's loss of many colonies, resulting from spraying trees during bloom, was related, and the warning given out not to buy spraying outfits from dealers advancing such ideas.

Extracts from a letter from George W. York, relating to black honey, brought to a close one of our best meetings.

Worcester Co., Mass. C. R. RUSSELL.

### Longs for Enchanting Forests.

In spring and early summer I long for the lone and enchanting forests of my boyhood days. Their fascinations cling to me, and sometimes almost make me wish to live them over again. At my feet were the dry leaves, the spring flowers and the bees, while in the trees overhead, and all about me, were the beautiful birds of song, happy in the life and liberty given them of God. Then the mother fox would bark at us by day and by night, and the wild deer would shy about in the distance, cropping the herbage here and there. O how the hoot and the screech of the owl, and the howl of the great fierce timber-wolves would make the small boy's hair rise when driving the cows home rather late in the even-

## Italian Queens, Bees and Nuclei.



We have a strain of bees bred specially for honey-gathering and longevity, at the following prices:

One Untested Queen.....	\$1.00
One Tested Queen.....	1.35
One Select Tested Queen.....	1.50
One Breeder Queen.....	2.50
One - Comb Nucleus (no Queen.....)	1.40

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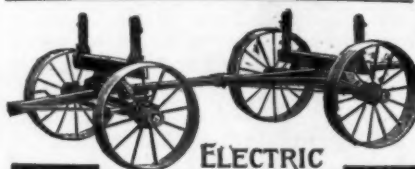
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## 3-Frame Nuclei For Sale

We are now booking orders for 3-frame Nuclei of Italian Bees, with queens, to be delivered between May 1 and May 15—first come first served. They will be shipped by express from Lee Co., Illinois, about 100 miles west of Chicago. They are on Langstroth frames, and the number of Nuclei is limited. Prices are f.o.b. starting point—One Nucleus, \$3.00; 5 or more at one time, \$2.75 each.

GEORGE W. YORK & CO.

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make the work easier for both the man and team. The tires being wide they do not sink into the ground; the labor of loading is reduced many times, because of the short lift. They are equipped with our famous Electric Steel Wheels, either straight or stagger spokes. Wheels any height from 24 to 60 inches. White hickory axles, steel hounds. Guaranteed to carry 4000 lbs. Why not get started right by putting in one of these wagons. We make our steel wheels to fit any wagon. Write for the catalog. It is free.

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49A26t

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ing from their wanderings in the woods for their daily living.

I wish I had the power to describe to you the charms of visiting some of our great pine forests of those days. I wish some of our old pioneers would in prose or poetry write them up. The young people of to-day have but a slight conception of them in their beauty, imposing height, of their hush in stillness, their sigh and their murmur in a gentle breeze, or of their terrific roar in storm.

S. T. PETTIT.

Ontario, Canada, March 11.

### Looked for Cold Weather.

I have 51 colonies of bees, and they have been carrying in pollen for the last 10 days. We are having very nice, warm weather, but I am afraid it is too early for the bees to breed and carry pollen. I am looking for some rough, cold weather yet which I think will be very hard on the bees.

WM. REIBER.

Center Co., Pa., March 21.

### White Clover Prospects Good.

The white clover has come through the winter in fine condition around here, and the prospects are good for a honey-flow next season.

I put 108 colonies in the cellar the last of November. They are wintering nicely so far.

WM. R. CREASER.

Dunn Co., Wis., March 20.

### Moving Bees—Good Prospects.

I have moved 17 colonies of bees with me, and all that were fairly strong came through all right; the weaker ones did not seem to stand it quite so well. Two of them seem very poorly. I just removed the covers and put wire-cloth over them and over the entrance, and they did not seem to suffer when I could keep the car open, which I could not do on account of the smoke from the engine some of the time.

The prospects here are good for a crop of honey this year, judging from the amount of white clover.

GEORGE H. WELLS.

Johnson Co., Mo., March 22.

### Expects a Favorable Season.

Two years ago I started with 2 colonies of bees, and the following winter lost one from smothering. I kept them in a cellar and did not give them enough ventilation. I now have 5 colonies wintering in the cellar and doing well.

I put up a shelf nearly 3 feet high, and set the 5 hives on this shelf, with blocks under the corners of each hive, raising them about 2 inches. This gives room under the hives to remove all dead bees and litter, and I have had no trouble with them up to the present time.

The temperature of the cellar has not been lower than 45 degrees during the winter. I fed one colony occasionally during the winter because I thought it was a little short of food, and shall continue to feed until time to put them out-of-doors.

I look forward for a favorable season for bees to work, as we had rather a poor season last year, owing to cold and wet weather the forepart of the season and dry the latter part.

This is my first epistle on this subject, and for fear of intruding upon Yon Yonson's time and patience, I will close by saying the American Bee Journal is all right.

A. M. DEITZ.

Charlevoix Co., Mich., March 16.

### Safe Spring Feeding.

For several years I have used a 5/8-inch cover for my hives during the winter instead of covering the top entirely with burlap. In this board cover I have a circular opening 6 inches in diameter. I lightly tack a piece of wire-cloth over the opening in the fall, put on the winter-case, pour in planer-shavings until they stand 6 inches deep in the center, and I am done with bee-work for five months.

About the second week of March, usually, I remove the shavings from the top of the



# How to Paint a House Cheap

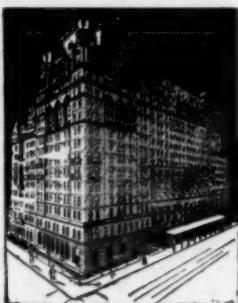
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The cost of painting the house and barns, out-buildings, bee-hives, and fences is a heavy burden. Cheap paints soon fade, peel or scrape off, and white lead and oil costs so much, and has to be replaced so often that it is a constant expense to keep the bright, clean appearance so desirable in the cozy cottage home or the elegant mansion. The following are a few of the large users of Carrara Paint:

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Carrara is used because it lasts longer, never fades, never cracks, never blisters, never peels, covers more surface than the highest priced paints, and costs less than the cheap mixed paints that in-



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jure instead of protect. Carrara Paint is the best possible covering for bee hives, as it does not chalk or peel, and perfectly protects the surface over which it is used, and one painting of Carrara will outlast two of the best white lead. A gallon will cover twenty-five 1½-story hives—two coats. There is but one Carrara. It is made by the Carrara Paint Agency, General Offices, 754 Carrara Bldg., Cincinnati, Ohio, and any one having a house to paint should send for 50 free sample colors and our beautiful booklet, showing many buildings reproduced in all the colors just as they are painted from this great paint that has stood the most rigid tests for 25 years; and bear in mind that it is the only paint ever manufactured that is backed by a positive guarantee in every case. Distributing depots in all principal cities. Write to-day and save half your paint bills in the future.

hives, take off the wire-cloth, and place a saucer about 4½ inches in diameter down in the circular opening and resting upon the frames. I put a piece of cloth in the saucer, allowing it to extend over the sides and touch the frames. Over the saucer I invert a cover about 6 inches square (inside measure) and 2 inches deep. Through this cover I have previously bored a hole large enough to admit a tin tube—an ordinary dipper-handle will make two—then I put back the planer-shavings and my preparations are done. Each evening I pour about five tablespoonfuls of thin syrup down through the tin tube and into the saucer. Nothing is left of the syrup by morning. To read the description it may seem like a good deal of work, but it is all very easy work, and once made, the articles last forever. I have never yet tried a plan that is so free from messiness and danger of robbing. It is absolutely safe, and I have found it successful in every instance.

"WREXHAM."

## CONVENTION NOTICE.

Missouri.—Bee-keepers of Missouri will meet in convention at Moberly, in the Commercial Club Rooms, at 2 o'clock p.m., on April 22, 1903, to organize a Missouri State Bee-keepers' Association. We expect to complete our organization on that day and have some bee-talks the day following. Everybody is invited who is interested in bees and honey. Let us have a good turn-out and a good time. Good hotel accommodations can be had at \$1.00 and \$2.00 a day. The Monitor Printing Company will tell you where the Commercial Club rooms are located. W. T. CARY, Acting Secretary. Wakena, Mo.

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Queens sent out last season by us arrived in the very best shape, except a few got chilled late in the season in the North. Our Queens have gone to California, Oregon, Canada, Colorado, Cuba, New Mexico, and many of the States. We rear all queens sent out by us from the egg or just-hatched larva; in full colonies. Our method is up-to-date. If you want to know what we have, and what we can do, in the way of fine, large, prolific QUEENS, send quick we can send them, just give us a trial order.

Prices: Untested Queens, \$1.00; 6 for \$5.00; 12 for \$9.00.

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Full Colonies, with Tested Queen, \$6.00.

3 frame Nuclei, wired Hoffman frames, no Queen, \$2.00; 2-frame, no Queen, \$1.50. (Add price of Queen wanted to price of Nuclei.)

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T. S. HALL,

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## HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, April 7.—Choice to fancy white comb honey sells in a limited way at 15@16c per pound. There is no certain price for other grades, but they sell slowly at 3@5c less per pound. Extracted, 6@7c for white grades; ambers, 5¼@6¼c. Beeswax, 32c per pound.

R. A. BURNETT & Co.

ALBANY, N. Y., Mar. 14. — Honey demand quiet; receipts and stock light. Comb selling, light, 15c; mixed, 14@15c; dark, 13@14c. Extracted, dark, at 7@7½c. Beeswax firm, 30@32c.

H. R. WRIGHT.

KANSAS CITY, Apr. 2.—Our market is almost bare of comb honey; the demand is good. We quote you as follows: Fancy white comb, 24 sections, \$3.50; No. 1, white, \$3.40; No. 2, white and amber, \$3@3.25. Extracted, white, 6¼c; amber, 5¼@6c. Beeswax No. 1, per pound, 25c.

C. C. CLEMONS & Co.

CINCINNATI, March 11.—The demand for extracted honey is good at the following prices: Amber, barrels, 5¼@6¼c, according to quality; white clover, 8@9c. Fancy comb honey, 15¼@16¼c. Beeswax strong at 30c.

THE FRED W. MUTH CO.

NEW YORK, April 8.—Comb honey is moving rather slowly of late and prices are somewhat declining. We quote fancy white at from 14@15c; No. 1, white, 13c; amber, 11@12c. Extracted quiet and easy, with plenty of supply. We quote white at 6¼@7c; light amber, 5¼@6c; dark at 5c. Beeswax steady at 30@31.

HILDRETH & SORLEKIN.

CINCINNATI, April 7.—The comb honey market has weakened a little more; the demand is offered at following prices: Fancy white, 14@15c; no demand for ambers whatever. The market for extracted has not changed and prices are as follows: Amber in barrels, 5¼@5½c; in cans, 6@6¼c; white clover, 8@8½c. Beeswax, 28@30c.

C. H. W. WEBER.

SAN FRANCISCO, Mar. 11.—White comb honey, 12¼@13¼c; amber, 9@11c; dark, 7@7½c. Extracted, white, 6¼@7¼c; light amber, 5¼@6c; amber, 5@5¼c; dark, 4@4¼c. Beeswax, good to choice, light, 27@29c; dark, 25@26c.

Demand is fair on local account for white, uncandied, but there is not much of this sort obtainable. Market for same is firm at ruling rates. Candied stock and common qualities are going at somewhat irregular and rather easy figures, holders as a rule being desirous of effecting an early clean-up.

## WANTED WHITE CLOVER EXTRACTED HONEY!

Send sample and best price delivered here; also

Fancy Comb wanted in no-drip cases.

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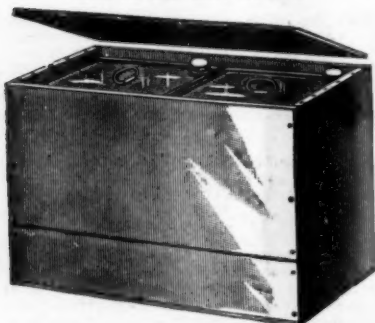
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Our Catalog for this season has been fully revised. This quotes our latest prices on our full line of **Supplies for the Apiary.** It contains a vast amount of valuable information and is free for the asking. If you have not already received a copy, send to the address nearest, and by placing your order there, you will save in freight charges and secure quick delivery.

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A solicitud se envia el catalogo Espanol gratis.

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Besides these dealers who get carload lots there are many local dealers handling supplies for their localities who obtain their supply either at Medina or of one of the above-named jobbers, as may be most convenient. These are dealers in general merchandise, or progressive bee-keepers, or others interested in improved methods of bee-keeping in their locality. If there is such a dealer in your vicinity, it will be to your interest to place your order with him; but be sure to insist on having Root's Goods, and do not accept inferior substitutes.